REMARKS

The pending claims are claims 29-56. In the Office Action, the Examiner rejected claims 29-31, 33-39, 49, 53, and 54 under 35 U.S.C. § 102(b) as being anticipated by the Hitzky patent (U.S. Patent No. 5,580,404). The Examiner rejected claims 32 and 40-42 under 35 U.S.C. § 103(a) as being unpatentable over the Hitzky patent in view of the Kogure et al. patent (U.S. Patent No. 4,649,975). The Examiner rejected claim 43 under 35 U.S.C. § 103(a) as being unpatentable over the Hitzky patent in view of the Japan '204 reference (JP 1-101204). The Examiner rejected claims 44, 45, and 48 under 35 U.S.C. § 103(a) as being unpatentable over the Hitzky patent in view of the Baumhofer et al. patent (U.S. Patent No. 5,308,416). The Examiner rejected claim 46 under 35 U.S.C. § 103(a) as being unpatentable over the Hitzky patent in view of the EP '884 reference (EP 485884).[1] The Examiner rejected claims 47, 50, 52, 55, and 56 under 35 U.S.C. § 103(a) as being unpatentable over the Hitzky patent. The Examiner rejected claims 51 and 53 under 35 U.S.C. § 103(a) as being unpatentable over the Hitzky patent in view of the EP '332 reference (EP 627332).

The Examiner also rejected claims 29-42, 44, 45, 47, 49, 50, and 52-56 under 35 U.S.C. § 103(a) as being unpatentable over the Fontaine reference (WO 99/17944) in view of the Graas et al. patent (U.S. Patent No. 5,088,536) and the Baumhofer et al. patent. The Examiner also rejected claims 48 and 51 under 35 U.S.C. § 103(a) as

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[1] While the Examiner initially stated that claim 46 is rejected over the Hitzky patent in view of the Baumhofer et al. patent, the Examiner referred to the EP '884 reference in discussing this rejection.

being unpatentable over the Fontaine reference in view of the Graas et al. and the Baumhofer et al. patents further in view of the Minami patent (U.S. Patent No. 5,526,860).

The Examiner indicated that claims 43 and 46 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and to additionally recite "wherein the first transverse notch and the transverse grooves delimiting the central blocks have substantially the same width."

Applicants note that, because no amendments are being made to any of the claims, they do not believe a listing of claims has to be filed in this Reply. Thus, the claims as presented in the Preliminary Amendment filed July 31, 2001, include the current language of pending claims 29-56.

Rejections Based on the Hitzky Patent

Of pending claims 29-56, claims 29 and 56 are independent and claims 30-55 each ultimately depend from claim 29. As noted above, the Examiner rejected claim 29 under § 102(b) as being anticipated by the Hitzky patent and rejected claim 56 under § 103(a) as being unpatentable as obvious over the Hitzky patent.

With respect to claim 29, the Examiner asserted that the Hitzky patent discloses, in its Fig. 6, a tread including a four block tread row, with each block having blind shaped sipes. (*Office Action*, p. 2.) With respect to the claim 56, the Examiner asserted it would have been obvious to provide the tread of the Hitzky patent "as a premoulded tread band since it is well known/conventional per se in the tire art to apply a tread on a carcass as a premoulded tread band as an alternative to molding the tread after applying the tread to the carcass." (*Id.* at p. 5.)

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Applicants respectfully traverse the Examiner's § 102(b) rejection of claim 29 based on the Hitzky patent because this patent does not disclose or suggest at least "wherein the blocks of the central rows comprise a first transverse notch having a first terminal end inside a respective block of the central rows and a first starting end communicating with the at least one central circumferential groove," as recited in Applicants' claim 29. Furthermore, to establish a *prima facie* case of obviousness, the Examiner must satisfy three requirements, one of which is to show that the prior art reference, or the combination of references, teaches or suggests all of the limitations of the claims. *See* M.P.E.P. § 2143. Thus, Applicants respectfully traverse the Examiner's § 103 rejection of claim 56 because, as with claim 29, this patent does not disclose or suggest at least "wherein the blocks of the central rows comprise a transverse notch having a terminal end inside a respective block of the central rows and a starting end communicating with the at least one central circumferential groove," as recited in Applicants' claim 56.

The Hitzky patent is directed to a tread including tire bars and sipes. In one embodiment, referring to Figs. 4-6, this patent discloses a tire having three straight grooves 4A-6A dividing the tread into four rows 32A-35A (intermediate rows 32A, 33A and shoulder rows 34A, 35A) of blocks 22-25, respectively. (Col. 3, lines 58-65.) Each block of the intermediate rows 32A and 33A includes hook shaped sipes (as represented by 45, 46 in the central row of blocks in Fig. 3) originating in a groove 4A-6A. (Col. 6, lines 4-9.) The sipes extend substantially perpendicular to the equatorial plane EP (Col. 6, lines 9-11.)

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Applicants submit that the "sipes" disclosed in the Hitzky patent do not disclose or suggest Applicants' "first transverse notch" or "transverse notch" recited in claims 29 and 56, respectively. Applicants refer to the following definitions of "sipe" and "notch" in the U.S. Patent and Trademark Office's Classification Definition, under Class D12, Transportation (found at uspto.gov). A sipe is "[a] small slot molded into the road contacting surface tread elements usually having no apparent width and represented in the drawing by an articulated single line on the tread surface." In contrast, a notch is "[a] short, relatively wide indentation in one or both sides of a groove or rib that does not fully transect the surface on which it is located." Applicants submit that "sipe" and "notch" are well known and precise terms indicating different elements in a tread design, and that these elements have dissimilar dimensions and functions.

For at least the foregoing reasons, Applicants submit that claims 29 and 56 are allowable over the Hitzky patent. Because claims 30-55 each ultimately depend from claim 29, these claims should be allowable over this patent for at least the same reasons that claim 29 is allowable. *See, e.g.*, M.P.E.P. § 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.") (*citing In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988)).

Rejections Based on the Fontaine Reference, the Graas et al. Patent, and the Baumhofer et al. Patent

Again, of pending claims 29-56, claims 29 and 56 are independent and claims 30-55 each ultimately depend from claim 29. The Examiner rejected claims 29 and 56 under § 103(a) as being unpatentable over the Fontaine reference in view of the Graas et al. patent and the Baumhofer et al. patent.

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With respect to claim 29, the Examiner acknowledged that the Fontaine reference does not include notches in center blocks. (*Office Action*, p. 6.) Instead, the Examiner asserted that "it would have been obvious to one of ordinary skill in the art to form notches in the center blocks of Fontaine since Graas et al. and Baumhofer et al. (also directed to block pattern tread) suggest forming **blind grooves (notches)** in the blocks in order to improve wet performance of the tire." (*Id.*) (emphasis in original.) The Examiner further stated that "[t]he limitation of the first notch extending beyond the longitudinal median plane of the block would have been obvious in view of Graas et al.'s suggestion to extend the blind grooves a distance of ½ the axial width of the block +- 20 %." (*Id.* at pp. 6-7.) (emphasis deleted.) With respect to claim 56, the Examiner asserted "it would have been obvious to provide the tread of Fontaine as a premoulded tread band since it is well known/conventional per se in the tire art to apply a tread on a carcass as a premoulded tread band as an alternative to molding the tread after applying the tread to the carcass." (*Id.* at p. 7.)

Again, to establish a *prima facie* case of obviousness, the Examiner must satisfy three requirements, one of which is to show that the prior art reference, or the combination of references, teaches or suggests all of the limitations of the claims. *See* M.P.E.P. § 2143. Applicants respectfully traverse the Examiner's § 103 rejections of claims 29 and 56 because the Fontaine reference, the Graas et al. patent, and the Baumhofer et al. patent do not disclose or suggest, either alone or in combination, at least "wherein the first transverse notch extends beyond a longitudinal median plane of a respective central row of blocks," as recited in Applicants' claim 29 or at least "wherein

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the transverse notch extends beyond a longitudinal median plane of a respective central row of blocks," as recited in Applicants' claim 56.

First, the Fontaine reference is directed to a tread for a pneumatic tire. In one embodiment, referring to FIG. 5, the tread has three circumferentially extending grooves (center groove 57 and two shoulder grooves 58, 59) that define two center ribs. (*See* p. 7, lines 26-32.) The tread also includes four sets of laterally extending grooves 50, 51, 52, 53. (*Id.*) More particularly, the two center ribs include blind grooves 52, 53 that originate in the shoulder grooves 58, 59, respectively. (*See* FIG. 5; *see also* p. 7, line 33 - p. 8, line 2.)

Assuming, *arguendo*, that either groove 52 or 53 of the Fontaine reference may comprise a "notch," neither of these grooves may comprise Applicants' "first transverse notch" or "transverse notch" recited in claims 29 and 56, respectively. While Applicants' claim 29 recites, in part, "a first transverse notch having . . . a first starting end communicating with the at least one central circumferential groove" and claim 56 recites, in part, "a transverse notch having . . . a starting end communicating with the at least one central circumferential groove," the grooves 52, 53 originate with shoulder grooves 58, 59, respectively. Moreover, because the grooves 52, 53 do not comprise Applicants' "first transverse notch" or "transverse notch," this reference also does not disclose or suggest at least "wherein the transverse notch extends beyond a longitudinal median plane of a respective central row of blocks" or "wherein the transverse notch extends beyond a longitudinal median plane of a respective central row of blocks," as recited in Applicants' claims 29 and 56, respectively.

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Second, the Graas et al. patent is directed to an all season type tire tread. The tread 11 of this patent has a plurality of grooves 36 that each extends across the tread 11 from one lateral edge TE_1 to the opposite lateral edge TE_2 of the tire. (Col. 3, lines 6-8.) The tread 11 also has five circumferentially extending zig-zag grooves 4, 5, 6, 7, 8 that are spaced axially apart across the surface of the tread 11. (Col. 2, lines 53-56.) The tread 11 also has short semi-blind grooves 19 that extend laterally on each side of a zig-zag groove such that their axial projection has a length substantially equal to the axial width of half of a respective block row, i.e., the rows adjacent to both sides of the circumferentially extending zig-zag groove. (Col. 3, lines 52-57.) The patent defines "substantially" as "a value differing at most by 20% from the reference value." (Col. 3, lines 57-59.)

Assuming, *arguendo*, that the short semi-blind grooves 19 of the Graas et al. patent may comprise a "notch," these grooves do not comprise Applicants' "first transverse notch" or "transverse notch" recited in claims 29 and 56, respectively. While Applicants' claim 29 recites, in part, "a first transverse notch having a first terminal end inside a respective block of the central rows and a first starting end communicating with the at least one central circumferential groove" and claim 56 recites, in part, "a transverse notch having a first terminal end inside a respective block of the central rows and a first starting end communicating with the at least one central circumferential groove," the short semi-blind grooves 19 extend laterally on each side of a zig-zag groove. In other words, as shown for example in FIG. 3, the middle of each groove 19 communicates with a zig-zag groove, and then the groove 19 extends in two directions, with one end terminating in one block and the second end terminating in a second

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block. Moreover, because the short semi-blind grooves 19 do not comprise Applicants' "first transverse notch" or "transverse notch," this patent also does not disclose or suggest at least "wherein the transverse notch extends beyond a longitudinal median plane of a respective central row of blocks" or "wherein the transverse notch extends beyond a longitudinal median plane of a respective central row of blocks," as recited in Applicants' claims 29 and 56, respectively.

Third, the Baumhofer et al. patent is directed to a vehicle tire. This patent discloses a tread having two tread element bands M3 and a shoulder tread element row S in each of the shoulders. (Col. 2, lines 35-38.) The tread element bands M3 are separated from each other and from the shoulder tread element row S in axial direction by wide and deep circumferential grooves 20. (Col. 2, lines 38-42.) The tread element bands M3 are provided with narrow grooves 24 that connect the separated circumferential grooves 20. (*See* col. 2, lines 43-53.) The tread element bands M3 are also provided with notches 25, 26 that alternate relative to a center line of a respective tread element band M3, and begin at circumferential grooves 20 and end within the tread element bands M3. (Col. 2, lines 57-63.)

The Baumhofer et al. patent does not state any particular length of the notches 25, 26, let alone a length of the notches 25, 26 relative to the longitudinal median plane of a central row of blocks. In addition, from a review of the FIGS. of this patent, it is clear that the notches 25, 26 do not extend "beyond a longitudinal median plane of a respective central row of blocks" as recited in claims 29 and 56.

For at least the foregoing reasons, Applicants submit that claims 29 and 56 are allowable over the Fontaine reference, the Graas et al. patent, and the Baumhofer et al.

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patent, applied either alone or in combination. Because claims 30-55 each ultimately depend from claim 29, these claims should be allowable over these references for at least the same reasons that claim 29 is allowable. *See, e.g.*, M.P.E.P. § 2143.03.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and continued examination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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